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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,636	03/06/2002	Yukitaka Hasegawa	P 290755 P1S2002022US	4912

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SUITE 10  
RESTON, VA 20190

EXAMINER

BARR, MICHAEL E

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 03/31/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/090,636

Applicant(s)

HASEGAWA ET AL.

Examiner

Michael Barr

Art Unit

1762

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**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 17 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 and 11 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 12-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 4 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-16, drawn to a method of fabricating a plated product, classified in class 427, subclass 328.
  - II. Claim 17, drawn to a plated product, classified in class 428, subclass 426.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Groups I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process of Group I can be used to make a materially different product other than that of Group II, such as one where the product does not have the claimed  $\Delta b^*$  value.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and the search for one group is not required for the other group(s), restriction for examination purposes as indicated is proper.
4. During a telephone conversation with David Posz on 2/5/03 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claim 17 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Objections***

6. Claim 2 is objected to because of the following informalities: Line 5 of Claim 2 contains the word "later". This appears to be a typographical error, where it should be --layer--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 5-9, 12, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakai.

Sakai teaches providing a synthetic resin base, coating the base with a basecoating and drying, plating the basecoat with silver by a silver mirror reaction, washing the silver to remove undesired particles, treating the silver to form a polyester polyol coating, and then forming a

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topcoat on the coated silver (Paras. 0013, 0027, 0032-0034, 0038-0039). The washing step of Sakai reads on the claimed impurity removal step and the treatment to forming the polyester polyol coating of Sakai reads on the claimed antioxidant formation step, since polyester polyol are oxidation resistant and would be expected to behave as such in Sakai.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai as applied to claims 1 and 12 above, and further in view of Chan.

Sakai does not teach treating the metal with an acid to remove impurities. However, the use of acids to clean a metal prior to coating with an organic material is conventional and well established in the art. Chan teaches coating a metal with an organic topcoat, where the metal is cleaned with a material, such as an acid, in order to allow the organic coating to adhere to the metal (Col. 5, lines 25-31). It would have been an obvious modification to Sakai to clean the metal layer of Sakai with an acid to remove impurities and contaminants, with the expectation of providing the desired cleaned metal prepared for coating and with the expectation that such cleaning would allow the organic coating to better adhere to the metal, as is taught by Chan.

11. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai and Chan as applied to claims 2 and 13 above, and further in view of Meng.

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Sakai and Chan do not teach that the acid is acetic or sulfuric acid. Meng teaches cleaning metal with an acid, where the acid is sulfuric acid (Col. 1, lines 33-35). It would have been obvious to one skilled in the art to use sulfuric acid to clean the metal layer of Sakai and Chan, with the expectation of providing the desired cleaning, since it is shown by Meng that sulfuric acid is a typical acid used for the cleaning of metals. Sakai, Chan, and Meng do not teach the concentration of the acid. However, it would have been obvious to one of ordinary skill to determine a workable concentration of the acid, through routine experimentation, which would provide the desired cleaning, without harming the metal surface. It is the examiner's position that the claimed sulfuric acid concentration would have been obvious to one of ordinary skill in the art practicing Sakai, Chan, and Meng, through such routine experimentation.

***Allowable Subject Matter***

12. Claims 4 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 10-11 are allowed.

14. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach the claimed step of adsorbing the impurities by application of the protein dispersed solution.

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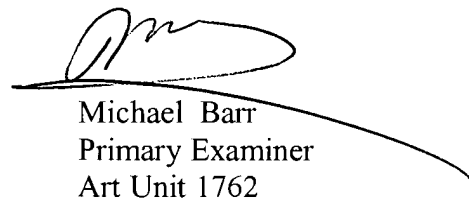
***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goodrich teaches applying a basecoat to a substrate, metallizing, and the applying a topcoat.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Barr whose telephone number is 703-305-7919. The examiner can normally be reached on Monday-Thursday 6:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 or 703-305-5408 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Michael Barr  
Primary Examiner  
Art Unit 1762

MB  
March 4, 2003